

## Agri 2019: Morphologic and quality characteristics of cultivated einkorn wheat (*Triticum monococcum* L. subs. *monococcum*) lines sown in autumn and spring seasons - Servet Kefi - Kastamonu University

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**Introduction:** Ancient individuals perceived and expended a great many wild and privately delivered plants. Social event clans in Australia despite everything assemble and use more than 400 diverse plant species having a place with in excess of 250 genera. In any case, in current social orders, just 150 species are effectively developed around the world, and only 30 of these give, straightforwardly or in a roundabout way, 95% of the calories and protein for people. This huge lessening in crop assorted variety brought about powerless cultivating works on relying upon just a few yields delivered on ranches and furthermore in an extraordinary misfortune in hereditary and nutritive qualities because of escalated developing frameworks. Indeed, grain yield and year of cultivar discharge are adversely corresponded with microelement content. The weakening includes microelements, macro elements, bioactive segments, and nutrients. The movement of interminable, non-transmittable ailments is related with the cutting edge human eating routine and is the result of a mind boggling exchange among hereditary and ecological variables, in which diet is a key part. With maintainability and soil and condition security in Center, natural agribusiness may outflank traditional cultivating as far as quality. All things considered, species decent variety could be expanded further in natural practice.

The more extensive spread of natural cultivating has just begun as of late. On a significant extent of the natural terrains, grain development handles lower motorization levels and poor, regularly minimal conditions in certain regions, for example, the sand edge region of the juncture of the Danube and the Tisza and northern Hungary, where diminishing soil water levels, poor and dry soils, acidic pH, and salinization can cause serious issues for cultivating. Changing climatic conditions further increment the event of joined water and supplement insufficiencies. Old wheat species, which have verifiably been developed under low-input conditions, could give an increasingly feasible elective that could help increment both field biodiversity and atmosphere adjustment, particularly on account of the heterogeneous landraces. Considering the higher promoting cost of these specialty items, antiquated wheat's could likewise be gainful for natural ranchers.

Emmer and einkorn are additionally viewed as more impervious to illnesses than current wheat's. Certain increases have been distinguished as obstruction sources against contagious illnesses, including fine build up, stem, yellow and leaf rusts, tan spot, Septoria smear, hits, and Fusarium. Despite the fact that there is an elevated level of fluctuation in regards to various promotions, such attributes can be significant

resources in natural creation where the utilization of pesticides is denied.

Emmer and einkorn are significantly less very much perceived than spelt, in spite of the fact that they are completely viewed as sound grains and are suggested for individuals that experience the ill effects of sensitivities, colitis, high blood cholesterol, and diabetes. Their preferences can mostly be credited to their low glycaemic file esteem, high satiety esteem, and higher absolute dietary fiber content (this last element isn't predictable over all investigations), in relationship with diminished starch processing rate. Be that as it may, not all the systems behind the valuable impacts are appropriately comprehended, as quantitative estimations can't be carefully connected with useful execution or subjective potential.

**Articulation of the Problem:** As being the principal developed wheat in the Fertile Crescent, diploid einkorn wheat ( $2n=2x=14$ , AA), *Triticum monococcum* L. subs. *monococcum*, was tamed 9500 years prior in Karacadag Mountains of South-East Turkey. These days it has been developed in just peripheral terrains of Turkey, Caucasus, Europe and Morocco. In the wake of having vanished in light of its substitution by high yielding present day wheat cultivars, as of late einkorn wheat has been re-presented in certain nations, particularly for natural cultivating, because of its high protection from irritations and illnesses, adjustment to unforgiving atmospheres, capacity to give worthy yields on helpless soils even with low/without sources of info and high dietary benefit. So as to keep up and use the hereditary assorted variety of einkorn wheat, it is important to create in situ preservation program to give congruity of development of its landraces; portraying, breaking down and reporting of its increases and recognizing its qualities for helpful agronomical and wholesome characteristics to utilize in reproducing programs.

**Materials and Methods:** Local 45 einkorn wheat lines, chose from 500 single lines planted by each single spikes gathered from 50 ranchers??? Fields in Kastamonu/Turkey were planted in fall (9 November 2017) and in spring (20 February 2018) and were reaped on 30-31 July 2018 and on 8 August 2018, separately. Morphologic and agronomic attributes were watched and estimated during developing time of plants and quality properties of gathered seeds were controlled by utilizing Single Kernel Characterization System &#40;SKCS&#41;.

**Findings:** All of the einkorn wheat lines in the preliminary indicated cultivate development propensity, blooming admirably when planted both in harvest time and in spring. In

spite of the fact that lines planted in pre-winter had more yield, similar lines planted in spring gave higher caliber and more protection from housing due to being shorter.

**Conclusions:** Einkorn wheat lines planted in pre-winter and in spring seasons demonstrated a huge variety for qualities, which can be utilized for einkorn reproducing programs